

Work Order ID: 567316

March 5, 2010 9:59:52 AM



Page 1

Item ID: D3391-013

Accept



Setup Start



Revision ID:

Item Name: Mid Tube Assembly

Stop



Start Date: 05/03/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 17/03/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

RL

Date: 10-3-05

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D3391	Rev H

100

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Cut tube to finish length as per Dwg D3391

2-Identify as D3391-013

3-Drill pilot holes using DT8796 (including "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391

4-Open saddles and GHW holes to Ø0.375" except for fwd saddle hole of detail "J"

5-Remove .030" from Fwd indexing Ridge as per Dwg D3391

6-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391

7-Deburr

8-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,

9-Open wearplate holes of D3391-013 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391 and 2 holes in section Detail "J", do not open wearplate holes of section "J"

10-Open wearplate holes of D3391-013 assembly detail section H-H to Ø0.297" (20 holes) as per Dwg D3391

BE 10/03/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev. Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

11-Open .375" holes to .438" ***do not open fwd saddle holes***

DE 10/03/10

12- Locate electric step holes 41.5000" from fwd end and drill using DT 8393

13- Open electric step holes 0.391" per dwg D3391 (section L-L)

14- Open electric step holes 0.297" per dwg D3391 (section M-M)

15- Open electric step holes 0.250" per dwg D3391 (section LL-LL)

N/A at this step. Has been moved
to Seq 160 DPO-3-31

16- Locate D3391-021 in D3391-023 at 9.00" (see view z-z)

17- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previously drill .188" dia hole, using t-pins and clicos to ensure perfect allignment, open up previously tranfer drilled pilot holes in D3391-013/-011 to 0.438" dia. in D3391-011

11/03/11

18- Transfer drill 2 wearplate holes into D3391-011 using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-011.

19- Locating from two fwd wearplate holes drill remaining 6 wearplate holes in D3391-011 using DT8937

20- Open 2 fwd wearplate holes in D3391-013 to .250" dia.

21- counterbore two aft wearplate holes in D3391-011 as per dwg

22- Open 12 wearplate holes in D3391-011 to 0.297" dia.

23- Deburr and blow out all chips from inside tube

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 M 10/4/05

1 BE 10/04/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Item ID:	D3391-013	Accept		Setup	Start	
Revision ID:						
Item Name:	Mid Tube Assembly				Stop	
Start Date:	05/03/2010	Start Qty:	1.00			
Required Date:	17/03/2010	Req'd Qty:	1.00			
Reference:						
				Cust Item ID:		
				Customer:		

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 	Skidtubes	0.00							
	1- Open holes to size as per dwg.								
	2- prepare for welding								
	Memo	0.00							
	3- Bond web in place as per Dwg D3391 & QSI 015.								
	*****Ensure Web Alignment *****								
	B# M112429								
	Exp 10/8/30								
150 	QC5- Inspect part completeness to step on W/O	0.00							
	Memo	0.00							
	Inspect each insert using DT8821								
160 	Skidtubes	0.00							
	Memo	0.00							
	1-Weld crossbolt spacer as per dwg D3391 & QSI 004 2-grind weld flush								

A/R M112860

* See Seq 100
DP 10-3-31

(1/k) BE 10/05/04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

QC10- Inspect visual per QSI004- ground welds

0.00

8.10.07.15



QC

Memo

0.00

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00

8.10.02.15



QC

Memo

0.00

Quality Control

Re-alodine as per 09-043 ml 10 08 16

190

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

2) JV 10/08/16



Powdercoat

Memo

0.00

Powder Coating

C ***Use paint screws to mask inserts.***

START TIME: 8:30 AM

OVEN TEMPERATURE: 320°

FINISH TIME: 9:00 AM

1 9

PTU

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-013 PAR #: Fault Category: Skid tubes NCR: Yes No DQA: Date: 10/08/18
 Resolution: rework Disposition: rework QA: N/C Closed: Date: 10/08/19

NCR: <u>56731</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10-08-18	100	Detail E holes for the electric step were not opened to finish size. missed @ inspection & production. R.C. LOA.	<u>OSIML</u>	<ul style="list-style-type: none"> hole locations are good. open to dwg & insert size. deburr & touch-up w/ LL Recline: Improve per QS/005 	<u> </u> <u>10-8-18</u> <u>ML 10/08/18</u>	<u> </u> <u>10/09/18</u> <u>ML 10/09/18</u>	<u> </u>	<u> </u>

NOTE: Date & initial all entries

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Cust Item ID:

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

200

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

ml 10 08 17 ①

210



Skidtubes

Skidtubes

0.00

Skidtubes

Memo

0.00

✓ 1- insert D3391-011 into D3391-13

= 2 10/08/18

✓ 2- insert T-pins into first and third fwd saddle holes

✓ 3- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to 0.500" as per DSI 9364

✓ 4- remove T-pins and locate DT9415 from first and third crossbolt hole using T-pins and clekos

✓ 5- ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499". Remove DT9415

✓ 6- deburr, re-alodine and blow out chips

✓ 7- press fit D3591-1 spacers using DT9416 starting from 0.500" side

1 9 _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

Required Date: 17/03/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

220

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

mm 10 08 18 ①

230

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

Install inserts

=> M 10/08/18

x1 0

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect thread of each insert using DT8821

mm 10 08 18 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 56731

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Cust Item ID:

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250



HandFinish
Hand Finishing

HandFinishing

Memo

Assemble as per dwg D3391

0.00

0.00

=> M

10/08/18

1

0

260



QC
Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

ml

10

08

18 ①

270



Packaging
Packaging

Identify as per dwg & Stock Location:

W/O 56742 ml

0.00

0.00

10

08

18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

Required Date: 17/03/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/08/19 JF

mf

10-8-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 56731

Parent Item: D3391-013

Parent Item Name: Mid Tube Assembly

Comments: IPP A 05.12.13 New Issue EC
IPP B 06.02.09 Dwg rev.D EC
IPP Rev:06-03-28 Update Manufacturing Instructions JLM
IPP rev D 07.03.14 dwg Rev F EC

Start Date: 05/03/2010

Required Date: 17/03/2010

Start Qty: 1.00

Required Qty: 1.00

AN960C10L

Purchased No

Each 388.0000 4.0000



washer



Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

100

M115000

x4 J1 1010818

103585

100

Main Warehouse

ST

288

112116

128

112612

160

D3672-1

Manufactured No

Each 1,618.000 10.0000



Phenolic Washer



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1118

39275

19

42329

5

47628

94

52505

1000

x10 J1 1010818

Main Warehouse

ST117

500

51674

500

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Work Order ID: 56731



Parent Item: D3391-013

Parent Item Name: Mid Tube Assembly

Start Date: 05/03/2010

Required Date: 17/03/2010

Comments:

IPP A ☐ 05.12.13 ☐ New Issue ☐ EC
 IPP B ☐ 06.02.09 ☐ Dwg rev.D EC
 IPP Rev:06-03-28 Update Manufacturing Instructions JLM ☐
 IPP rev D 07.03.14 dwg Rev F EC

Start Qty: 1.00

Required Qty: 1.00

D2500-1-100



Skidtube Extrusion

Manufactured No

100

Each

131.0000

1.0000



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

If

87

50251

87

Main Warehouse

ST

44

37065

44

MS27039C4-08

Purchased

No

100

Each

69.0000

4.0000



SCREW

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

69

17831

69

D3391-011

Manufactured

No

140

Each

0.0000

1.0000



Fwd Tube Assembly

B56727



14 10/08/18

1 10/13/31

D 3681-1

10.05.04

B 57656

x12

BE 10/05/04

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Work Order ID: 56731



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Parent Item Name: Mid Tube Assembly

Start Date: 05/03/2010

Required Date: 17/03/2010

Comments:

IPP A 05.12.13 New Issue EC
 IPP B 06.02.09 Dwg rev.D EC
 IPP Rev:06-03-28 Update Manufacturing Instructions JLM
 IPP rev D 07.03.14 dwg Rev F EC

Start Qty: 1.00

Required Qty: 1.00

D3389-1

Manufactured No

210

Each

3.0000

1.0000



Web

356813 D 11/14/16

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

2

56624

2

Main Warehouse

ST

1

48244

1

ALS4-1032-225

Purchased

No

230

Each

6,116.000

10.0000



Insert

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

6116

107441

16

10768

6100

x10 10/08/18

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Work Order ID: 56731



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Required Date: 17/03/2010

Comments:

IPP A 05.12.13 New Issue EC
 IPP B 06.02.09 Dwg rev.D EC
 IPP Rev:06-03-28 Update Manufacturing Instructions JLM
 IPP rev D 07.03.14 dwg Rev F EC

Start Qty: 1.00

Required Qty: 1.00

ALS4-428-165

Purchased No

230

Each

30.0000

4.0000



Inserts

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

30

6989

30

D3591-1

Manufactured No

230

Each

37.0000

2.0000



Bushing

x4 JH 10/08/18

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

37

1357350

x2 JH 10/08/18

46105

29

47121

8

ALS4-1032-130

Purchased No

250

Each

1,142.000

26.0000



Insert

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1142

114723

x26 JH 10/08/18

110511

1142

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Required Date: 17/03/2010

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IPP A 05.12.13 New Issue EC

IPP B 06.02.09 Dwg rev.D EC

IPP Rev:06-03-28 Update Manufacturing Instructions JLM

IPP rev D 07.03.14 dwg Rev F EC

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

250

Each

1,649.000 10.0000



BOLT



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1649

11114921

X10 11 10/08/18

112314

13

112720

12

112724

3

112829

1

112991

2

113121

64

113226

344

113644

110

113749

100

114103

500

114108

500

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Comments: IPP A 05.12.13 New Issue EC
IPP B 06.02.09 Dwg rev.D EC
IPP Rev:06-03-28 Update Manufacturing Instructions JLM
IPP rev D 07.03.14 dwg Rev F EC

Start Date: 05/03/2010

Required Date: 17/03/2010

Start Qty: 1.00

Required Qty: 1.00

AN960C10L

Purchased No

250

Each

388.0000

10.0000



washer XNAS1149C0332R

★

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

100

M115000

x10 41 1060818

103585

100

Main Warehouse

ST

288

112116

128

112612

160

AN960C416L

Purchased No

250

Each

1,314.000

4.0000



WASHER

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

44

104925

44

Main Warehouse

ST

1270

111916

2

112612

368

112794

500

112828

400

x4 41 1060818

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Shop Packet Print

Page 149

Picklist Print

March 5, 2010 9:59:50 AM

Page 150

7

Work Order ID: 56731



Parent Item: D3391-013



Parent Item Name: Mid Tube Assembly

Start Date: 05/03/2010

Required Date: 17/03/2010

Comments:

IPP A 05.12.13 New Issue EC

Start Qty: 1.00

Required Qty: 1.00

IPP B 06.02.09 Dwg rev.D EC

IPP Rev:06-03-28 Update Manufacturing Instructions JLM

IPP rev D 07.03.14 dwg Rev F EC

D3401-041

Manufactured No

250

Each

25.0000

1.0000



Tow Cap Assembly



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

25

36216

1

41931

1

46029

13

50316

10

X1 10/08/18

D3564-13

Manufactured No

250

Each

36.0000

1.0000



Wearshoe



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP17

24

51611

3

56285

21

Main Warehouse

ST

12

45409

2

46495

10

1359460

X1 10/08/18

Picklist Print

March 5, 2010 9:59:50 AM

Page 151 **8**

Work Order ID: 56731



Parent Item: D3391-013



Parent Item Name: Mid Tube Assembly

Start Date: 05/03/2010

Required Date: 17/03/2010

Comments:

IPP A 05.12.13 New Issue EC
 IPP B 06.02.09 Dwg rev.D EC
 IPP Rev:06-03-28 Update Manufacturing Instructions JLM
 IPP rev D 07.03.14 dwg Rev F EC

Start Qty: 1.00

Required Qty: 1.00

D3566-13

Manufactured No

250

Each

75.0000

1.0000



Gasket

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

73

B59661

x1 JH 10108118

53461

73

Main Warehouse

ST

2

45717

1

50265

1

D3672-1

Manufactured No

250

Each

1,618.000

4.0000



Phenolic Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1118

39275

19

42329

5

47628

94

52505

1000

Main Warehouse

ST117

500

51674

500

JH 10108118

March 5, 2010 9:59:50 AM

Shop Packet Print

Page 151

Picklist Print

March 5, 2010 9:59:50 AM

Page 152 **9**

Work Order ID: 56731



Parent Item: D3391-013



Parent Item Name: Mid Tube Assembly

Start Date: 05/03/2010

Required Date: 17/03/2010

Comments:

IPP A 05.12.13 New Issue EC

Start Qty: 1.00

Required Qty: 1.00

IPP B 06.02.09 Dwg rev.D EC

IPP Rev:06-03-28 Update Manufacturing Instructions JLM

IPP rev D 07.03.14 dwg Rev F EC

D3672-3

Manufactured No

250

Each

524.0000 4.0000



Phenolic Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST117

24

B57704

x4 M 10/08/18

51596

24

Main Warehouse

ST77

500

55560

500

MS27039C1-09

Purchased

No

250

Each

30.0000 4.0000



SCREW

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

30

17831

30

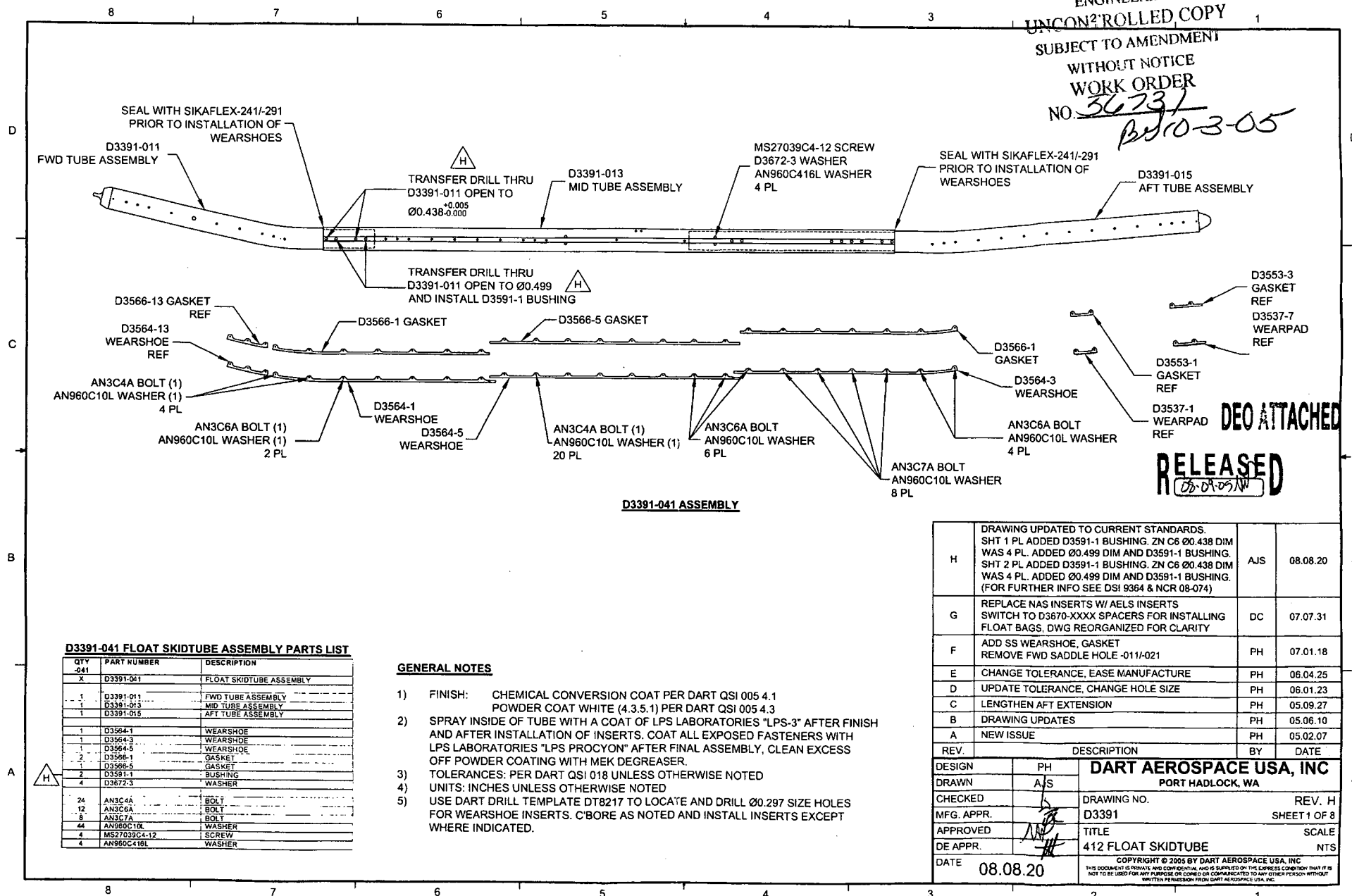
x4 10/08/18

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER

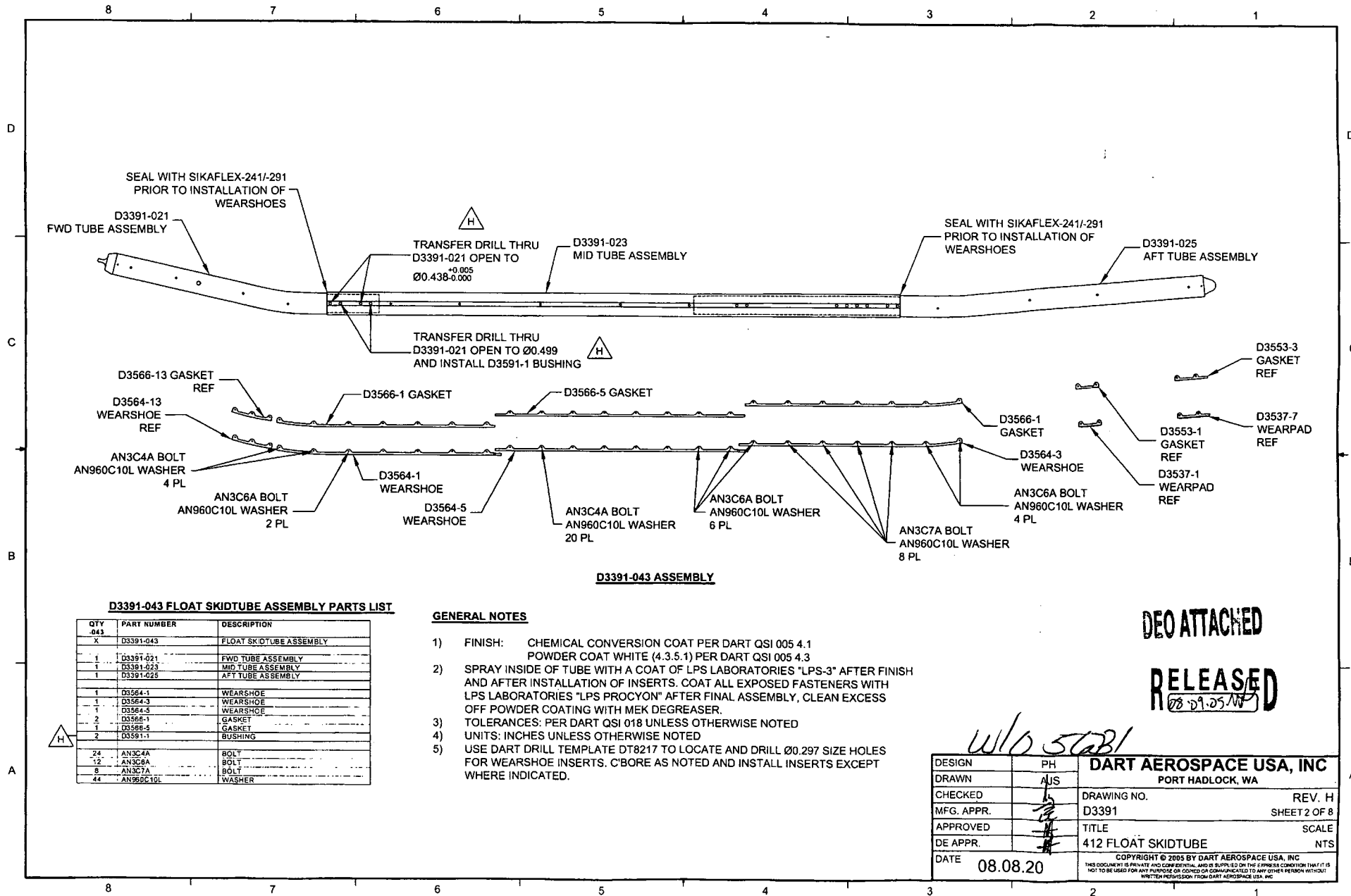
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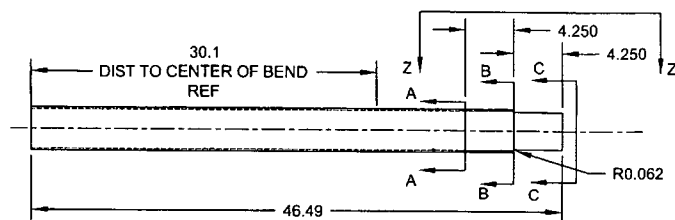
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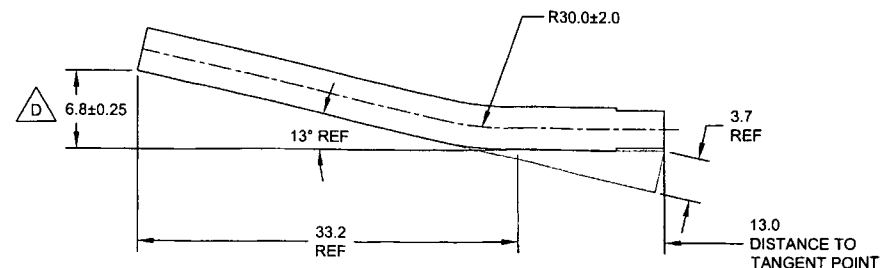
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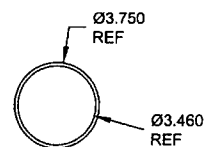




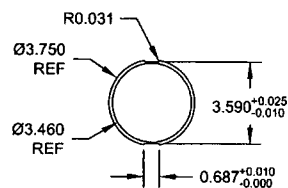
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



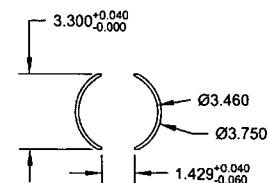
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



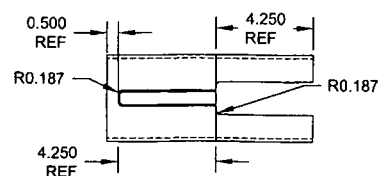
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SECTION B-B
SCALE 2X



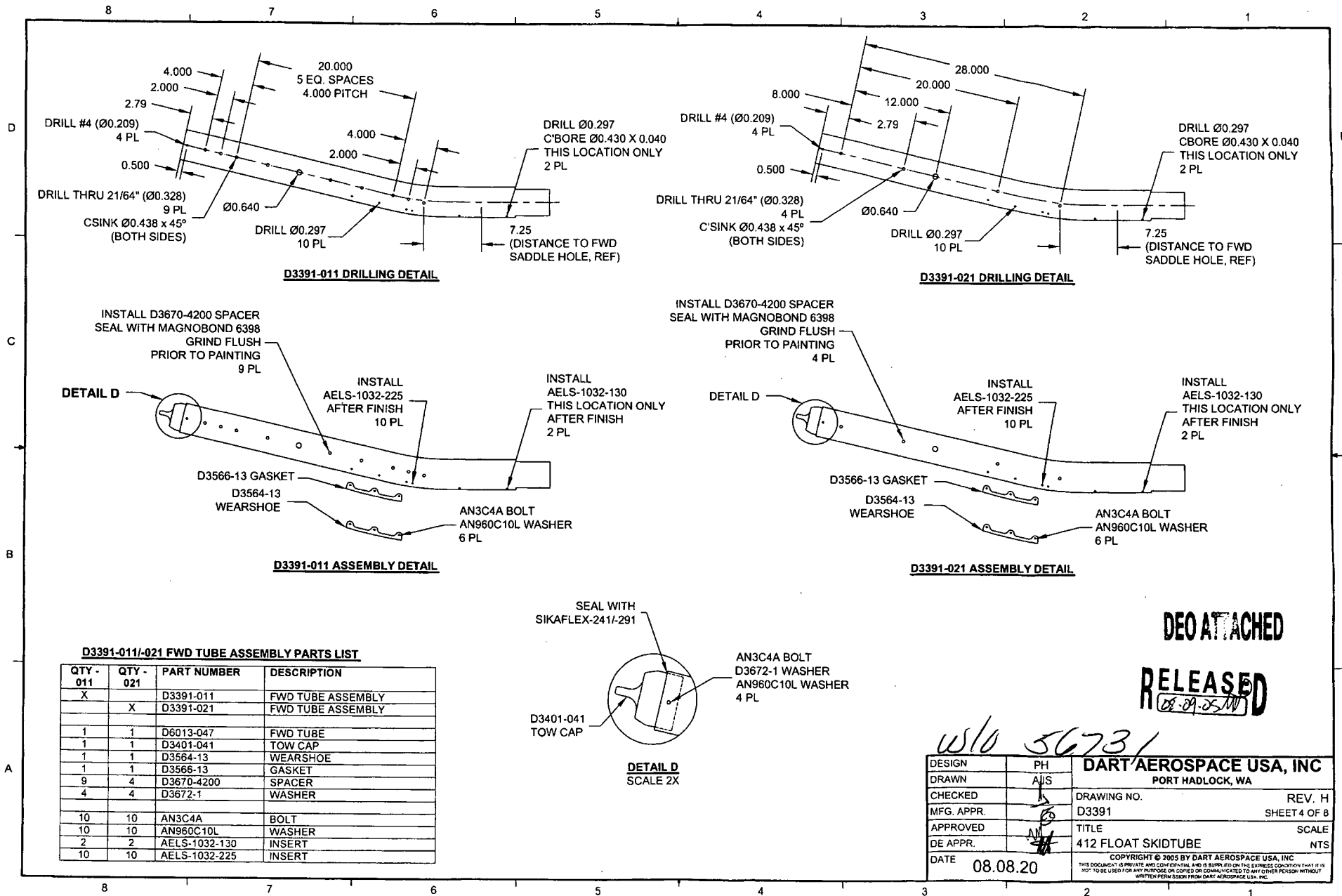
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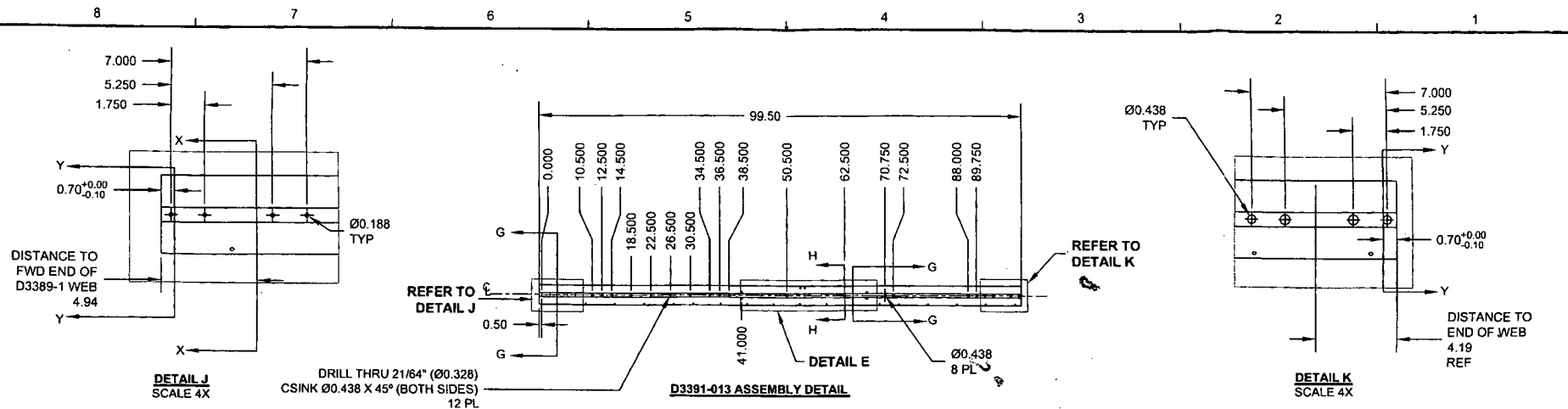


VIEW Z-Z
SCALE 2X

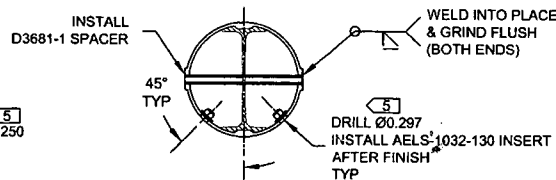
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28-05-77

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DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC	
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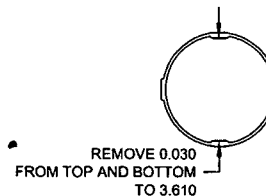




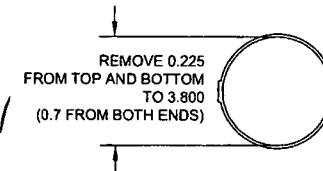
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SECTION H-H
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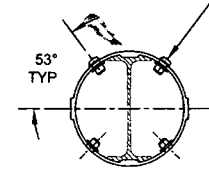
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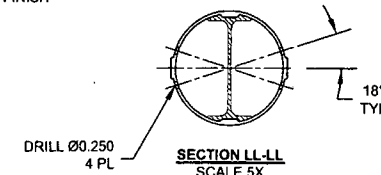
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SCALE 5X

W/0.50.731

DRILL 0.297
INSTALL AELS-1032-130 INSERT
MS27039C1-09 SCREW
D3672-1 WASHER
AN960C10L WASHER
AFTER FINISH
4 PL



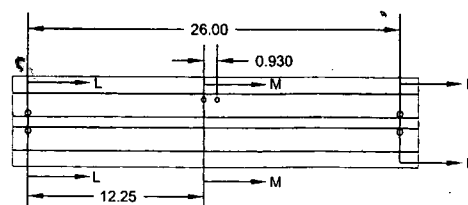
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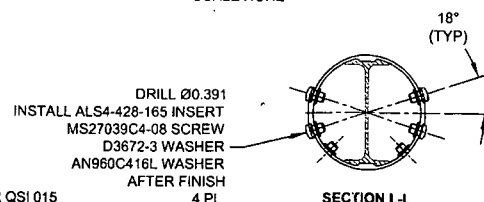
SECTION LL-LL
SCALE 5X

D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
4	D3672-1	WASHER
4	D3672-3	WASHER
12	D3681-1	SPACER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN960C10L	WASHER
4	AN960C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW



DETAIL E
SCALE NONE






SECTION L-L
SCALE 5X

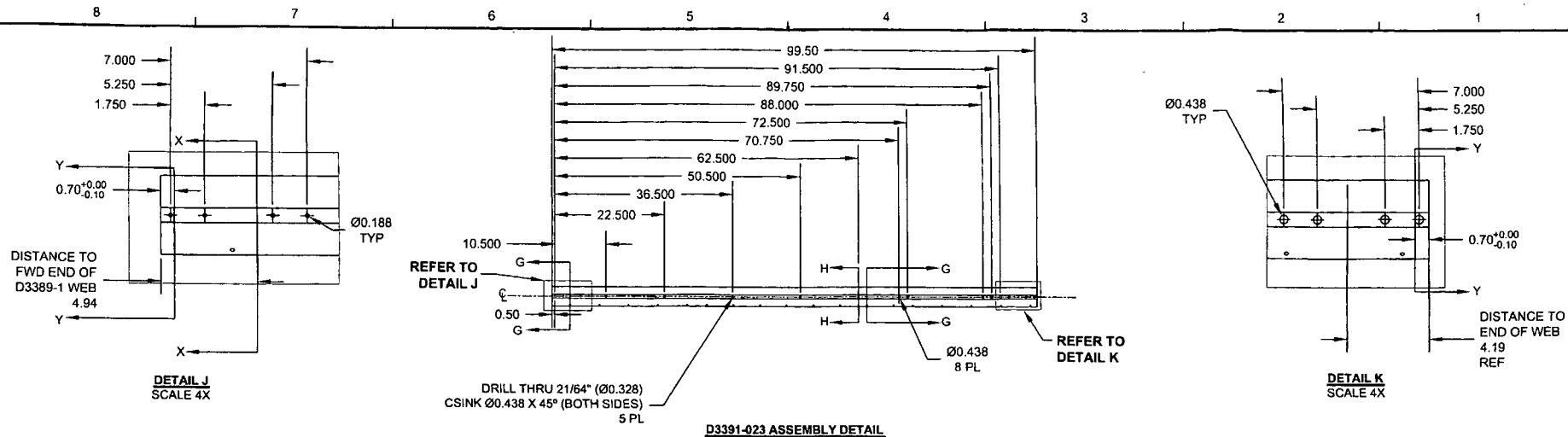
D3391-013 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004

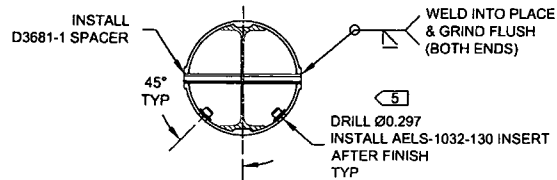
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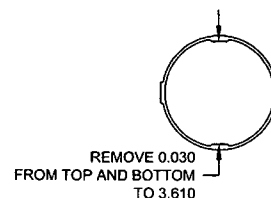
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 5 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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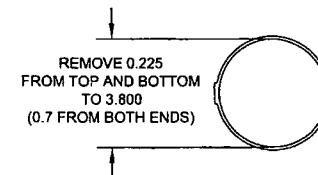
SECTION G-G
SCALE 5X



SECTION H-H
SCALE 5X



SECTION X-X
SCALE 5X



SECTION Y-Y
SCALE 5X

D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY -	PART NUMBER	DESCRIPTION
023		
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

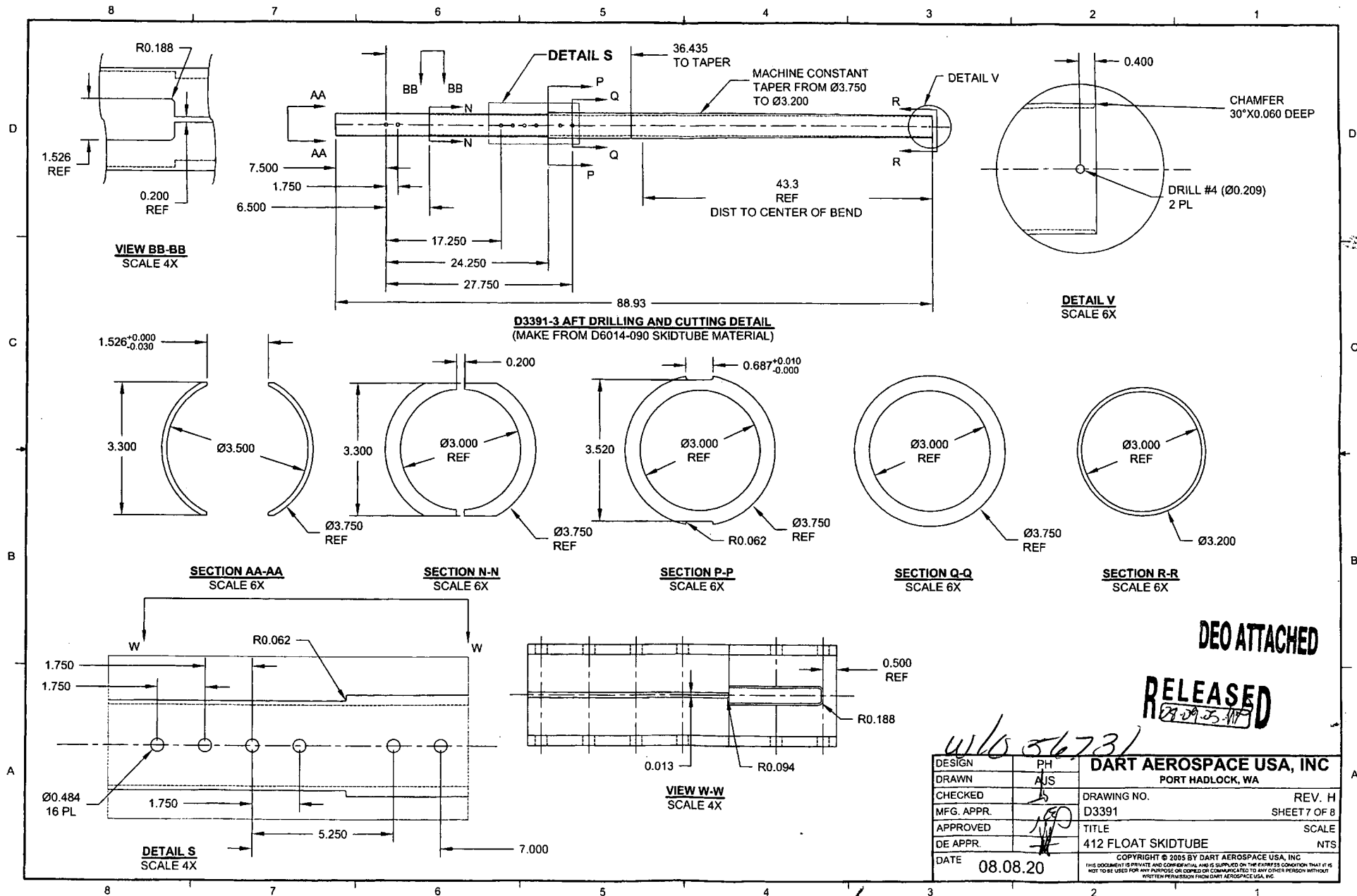
D3391-023 MID TUBE ASSEMBLY

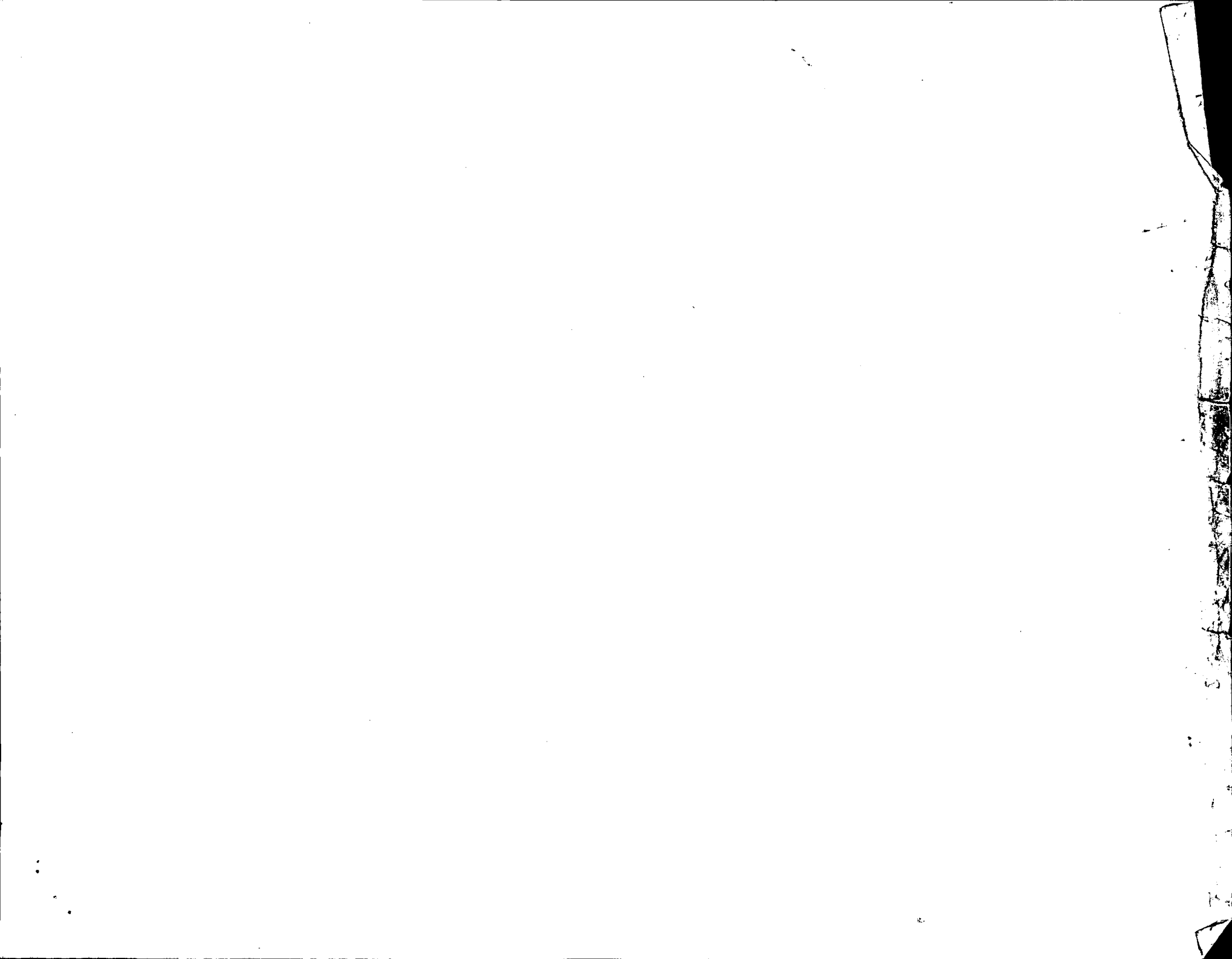
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
- 3) WELDING: PER DART QSI 004

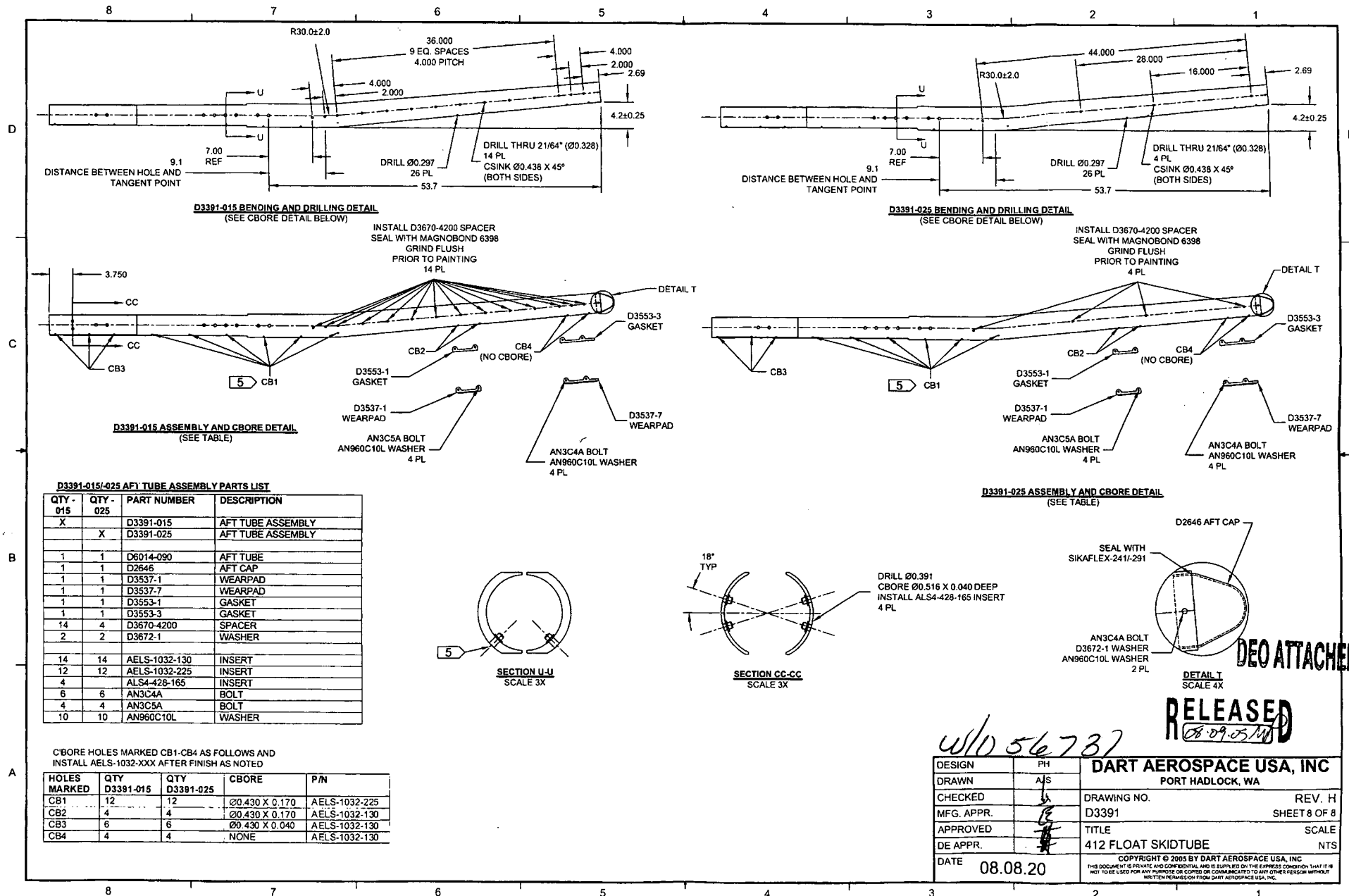
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DESIGN	PH	DART AEROSPACE USA, INC PORT HADLOCK, WA
DRAWN	AJS	
CHECKED		DRAWING NO. REV. H
MFG. APPR.		D3391 SHEET 6 OF 8
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DEO ATTACHED
RELEASED
08-09-05-11







DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	REV. H	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3391-H-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>h</i>	MFG. APPR. <i>AA</i>	APPROVED <i>MP</i>		DE APPR. <i>MP</i>		
DATE 09.09.23	DATE 04.09.24	DATE 09/09/25	DATE 09/09/30		DATE 09/09/30		

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041/-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

- 2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH~~
~~AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH~~
 LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
 OFF POWDER COATING WITH MEK DEGREASER.

RELEASED
 2010-02-02

MP

u/o 56731

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NO. 228

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Berkeley Elliott
Job number: B56739
Part number: D3391-013
Description: mid tube
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier P. D. D. Date of Test Coupon 10.04.13
Welder Berkeley Elliott Date of Test Coupon 10.04.13

The above named individual is qualified in accordance with AWS D17.1.2001 to weld